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They are thicker anteriorly with the head end obtusely rounded, and with the mouth minute and bounded by a minute pair of conical lips. The tail end of the female is straight and blunt; that of the male is more tapering, and is included in an elliptical alary appendage, supported on each side by a row of five curving ribs. A pair of similar, but shorter and straight papillæ is situated near the anal aperture; and a pair of pointed processes diverge from the end of the tail into the alary expanse.

Two species of *Filaria* have been previously observed in *Strix brachyotus*, *F. attenuata* Rud., and *F. foveata* Schn., to neither of which the specimens under examination appear to belong. These, however, so closely accord with the descriptions of *F. labiata* Creplin, from the black stork, *Ciconia nigra*, that, notwithstanding the remote relationship in the host, the speaker believed them to belong to that species. In the construction of the caudal extremity of the male, they closely approximate the condition of *F. labiata* and *F. horrida*, as represented in the figures of Schneider (Monographie der Nematoden), while they are widely different from that of *F. attenuata* and *F. foveata*, as represented in similar figures of the same work.

Some notes on Manayunkia speciosa.—Prof. H. Carvill Lewis read a communication from Miss S. G. FOULKE, in which the following statements were made:—

In the worm *Manayunkia speciosa*, described and figured by Prof. Leidy (Proc. Acad. Nat. Sci. Phila., 1883), the tentacular crown, or branchial organ, is the feature of special interest.

According to Dr. Leidy, the tentacles present in an adult are eighteen in number, besides two larger and longer tentacles situated midway between the two lophophores. These larger tentacles are conspicuous by their bright green color, and are, in fact, external continuations of the blood-vessels extending lengthwise throughout the body. In shape, these tentacles taper from base to apex, are convex on the outside, but concave on the side which faces the centre of the tentacular crown; so that a transverse section would present the shape of a crescent. The two edges thus formed are fringed with cilia. When closely watched, the green tentacles are seen to pulsate with a rhythmical motion, contracting and expanding longitudinally. The pulsation takes place in each tentacle alternately.

At the moment of contraction the tentacle turns slightly on its axis, outwards and towards the end of the lophophore on that side, at the same time giving a backward jerk, returning to its former position at the moment of expansion.

By force of the contraction, the green blood filling the tentacle is forced downwards out of the tentacle, and flows along the blood-vessel on that side of the body. On the expanding of the tentacle, the blood instantly returns and suffuses it, and thus the process goes on.

The contraction and expansion occur at exact intervals, together occupying the space of two seconds. It is in this way that the blood is purified and its circulation controlled. These observations were made with a seven-eighths inch objective.

To ascertain how long the cilia upon the tentacles would continue their motion after separation from the body of the worm, both lophophores of an adult were cut off above their junction.

At first the tentacles remained closed from the shock, but soon they were expanded, the cilia displaying active motion, and presently the two separated lophophores began to move about in the zoophyte-trough. This motion was produced by the action of the tentacles, which bent in all directions, the tips touching the glass, and was not a result of the currents produced by the cilia. In a few minutes one lophophore had *crawled* in this manner quite across the trough, while the other remained floating in the water near its first position. In the case of this latter the motion was produced by the ciliary currents, and was entirely distinct from the *crawling* above noted.

During this time the decapitated worm had sunk to the bottom, and, though turning and twisting a good deal, did not attempt to protrude the mutilated support of the lophophores. Its body was so much contracted that the segments were not above one-third their usual size.

At the end of five hours the worm was apparently dead, numbers of infusoria had collected to prey upon it, and the surface of the body presented a roughened appearance as though covered with tubercles. The lophophores were still crawling and swimming about.

At the end of the eighth hour the lophophores had ceased to crawl, but the ciliary action, though feeble and uncertain, still continued. The body of the worm was then covered with a thick fungoid growth, consisting of transparent rod-like filaments three-sixteenths of an inch in length; some of the filaments presented a beaded appearance. All motion of the cilia upon the tentacles had ceased, and these also were being devoured by infusoria.

The above experiment shows that the motion of the cilia continued about twice as long as the mutilated worm gave evidence of life.

Several individuals of *Manayunkia* were observed to be preyed upon, while still living, by large monads, embedded in one or more of the segments, which were sometimes excavated to a considerable degree.